

Plaintiffs' Exhibit 42

AWBid Expansion

AWBid or AdWords Bidder expands AdWords reach beyond the GDN (DRX, AdSense, Admob) to third party inventory. Currently, AWBid is limited to remarketing demand. This PRD proposes an expansion into other targeting types.

We're estimating incremental AWBid Expansion opportunity (on top of current 350M) be **863M**:

- Remarketing +345M
- ICM +218M
- Keyword +200M (est. to be similar to ICM)
- AppInstall +100M

Current status

ICM and Keyword are currently running at 1% experiment. ICM is further ahead due to some recent skyray launches (DBM ICM via doc vertical), and the fact that we've ramped up to top 20k ad groups, representing >90% of GDN revenue.

ICM/Topics/Vertical/Affinity have good coverage using doc signals, trade-off between work involved & returns seems good.

For keywords, most of the gdn revenue share is from audience keywords which depends on cross-exchange data co-op. With the doc signals, the work involved for keywords vs. returns is less attractive than icm/topics/vertical/affinity, but still reasonable. Another challenge is w.r.t. quality of doc keywords, when compared to overall gdn quality today (as gdn quality gets benefited from audience signals).

The following sections will focus on ICM and the potential upside and provide an outlook on keyword and app install later.

REMARKETING

Status	Timeline	Notes	Est. Upside (cumulative)
Current			350M
Expanding to all major exchanges	Q2 2017		450M
DG + SA [10%]	Q4 2017		495M
Mobius	tbd.	Pending spam defenses on app inventory (bidguard).	695M

ICM

If we turned ICM on today, we would expect to see close to 1% bump for GDN overall (or ~75M ARR). That's without any latency optimizations, with limited signals. subset of exchanges. Below is a list of improvements, required investment and expected upside.

Status	Timeline	Notes	Est. Upside (cumulative)
Current			<u>40M</u>
Expand to all AWBid Exchanges, incl. Appnexus, RMX [+60%]	Q2 2017	The current experiments are only running on a subset of AWBid exchangers. Expanding to all exchanges would result in substantial upside.	64M
Latency improvements [+10%]	Q3 2017	We should have more accurate data on what additional impact addressing latency could be by end of this week. Typically 2ms improvement translates into 1 percentage point increase.	70M
Per exchange data coop [+30%]	Q3 2017	Current agreements allow building profiles for targeting on the same exchange.	91M
Cross-exchange data coop [+100%]=	Q4 2017 dependencies on BD	For some subset of exchanges, we have the right to use targeting data across-exchanges in a coop.	182M
Start buying on App Traffic [+20%]	Q4 2017	Pending spam defenses on app inventory (bidguard).	218M
Closing gap to DBM [x%]		Some exchanges are on DBM but not AWBid. Adding them would lead to another increase	?M

Next Steps

1. Ramping up to 5% experiment to get more stats (esp. Conversion stats)
2. Enable smartpricing in latency friendly way (currently using average as pricing, ie. .7) - wouldn't overbid but ROI not as good as rest of network

Keywords

We don't have enough data to estimate this yet. But expect to be close to ICM. Revisit early in Q3.

App install

Estimate opportunity is 100M if restricting to iOS inventory only. Currently working to resolve quality problems. Once that's resolved the only gating factor is bidguard. We expect to have a launch candidate end of Q3.

Share of revenue by targeting type

- Keyword: 40.3%
- Userlist: 33.1%
- ICM: 13.1%

- Topic/Vertical: 5.2%
- Website (placement): 3.2%
- Demographics: 3.1%

The above list shows that ICM and Keywords account for the majority of the non-userlist GDN spend today.